

REMARKS/ARGUMENTS

Reconsideration and withdrawal of the rejections set forth in the Office Action dated November 2, 2006, is respectfully requested in view of this amendment. By this amendment, claim 1 has been amended. Claims 1 – 19 are pending in the application, of which claims 10-19 are withdrawn from consideration. Claims 1-9 are presented for examination on the merits.

The amendment to the claims more clearly sets forth the previously-recited thicknesses of the reflection portion and the transmissive portion, and clarifies the flat color filter as comprising red, green and blue colors. Claim 1 also describes the ratio of the thicknesses in terms of the red, green and blue filters. Support is found in the original specification, *inter alia* at page 5, lines 14-16. It is respectfully submitted that the above amendments and corrections do not introduce any new matter to this application within the meaning of 35 U.S.C. §132.

In the outstanding Office Action, the Examiner rejected claims 1 – 9 under 35 U.S.C. §103(a) as unpatentable over US Patent No. 6,295,109 (Kubo et al., hereinafter *Kubo*) in view of US Patent No. 6,798,473 (Kaneda et al., hereinafter *Kaneda*).

Rejections Under 35 U.S.C. §103(a)

The Examiner rejected claims 1 – 9 under 35 U.S.C. §103(a) as unpatentable over US *Kubo* in view of *Kaneda*. This rejection, as applied to the amended claims, is respectfully traversed.

Response

The feature of the present application, as set forth in claim 1, is that: the passivation layer is formed on the thin-film transistor (TFT) array substrate, and then, a reflection layer is formed on a partial area of the passivation layer. Next, a predetermined depth of another area of the passivation layer unprotected by the reflection layer is etched; wherein the predetermined depth is determined according to the color, for example red, green or blue color, of the color filter, and then the thickness of the passivation layer is determined accordingly. By this structure, the visual color density on the reflection section and the transmission section would be the same. i.e., the feature of the present invention is that: determining the total thickness of reflection layer and

reflection portion of passivation layer to the thickness of transmissive portion of passivation layer is determined according to the color of a color filter to make the reflection light and transmitted light having the same visual color density.

Referring to the references cited by the examiner, *Kubo* discloses a transflective liquid crystal display (LCD) device comprising a reflection portion and a transmissive portion. *Kaneda* discloses a color filter formed over a reflection portion and a transmissive portion to generating the same color density on both portion. More specifically, the ratio of the thickness of the color filter on the transmissive portion to that on the reflection portion is 2:1; similarly, the thickness ratio of the color filter on the transmissive portion to the total thickness of reflection layer and the adjustment layer is 2:1 also.

Thus, according to the *Kaneda*, the thickness ratio of the color filter on the transmissive portion to other color filters and layers (the reflection layer plus the adjustment layer) is a fixed value. In contrast, in the present invention, the thickness of a color filter is determined by the color of a color filter and the thickness ratio of the color filter on the reflection section to that on the transmission section is not a given fixed value.

Further, the present invention also discloses that the thickness ratio of the passivation layer with a reflection layer covered thereon to the passivation layer without a reflection layer covered thereon is calculated by hue simulation of primary colors red, green and blue to generate light with the same visual color density, which is not discloses in the cited references:

"... ratio of a total thickness of said reflection layer and said reflection portion to the thickness of said transmissive portion is determined depending on the red, green, and blue colors of said flat color filter." (Claim 1.)

It is respectfully submitted that, in view of the prior art of record, a person having ordinary skill in the art would not have a reason or motivation to combine these two references to produce the present invention. Specifically, a person having ordinary skill in the art would not use the cited references to develop the color filter arrangement as claimed in claim 1, because the thickness ratio of the color filter on the transmissive portion to that on the reflection portion is a

fixed value in *Kaneda* and the method for determining the thickness ratio of the passivation layer of the present invention is not disclosed in the cited references.

Further, a person having ordinary skill in the art would not have any teaching, suggestion or motivation inspired by combining these two references to invent the technical feature of the present invention. There is no suggestion at all of determining the thickness of a color filter by its type and that of the passivation layer by hue simulation to generate light with uniform color. Furthermore, the color filters with fixed thickness ratio to other color filters and layers (the reflection layer plus the adjustment layer) described by *Kaneda* further "teach away from" the technical feature of the present invention as set forth in claim 1.

Moreover, the structure of the present invention is formed by color filter on array process. *Kaneda* fails to disclose a particular substrate on which the color filter is formed. Therefore, there is not suggestion in *Kaneda* of a structure formed by color filter on array process without providing any further evidence. Similarly, in the detailed description of *Kubo*, the experiment 6 only describes a color filter but fails to describe on which substrate the color filter is formed. Therefore, experiment 13 clearly describes that the color filter is formed on the substrate opposite to the TFT substrate.

Therefore, *Kubo* and *Kaneda* teach away from the present invention in that the references specifically describe a conventional structure formed by aligning a TFT substrate with a color filter and then injecting liquid crystal there between but the structure disclosed by the present invention is formed by color filter on array process; wherein the color filter layer is directly formed on the TFT array substrate for avoiding the alignment error caused by the traditional way and enhancing the aperture ratio.

Hence, neither reference anticipates the claimed invention. With reference to a combination of *Kubo* and *Kaneda*, the references teach away from the present invention by precluding any combination relevant to the selection of the ratios of the reflective and transmissive portions in accordance with the red, green and blue colors of the flat color filter.

Therefore, the citations fail to teach the features and characteristics of the invention as set forth in claim 1 and claims dependent therefrom. Furthermore, there is no suggestion of motivation to combine these references to provide the claimed structure.

Thus, claim 1 of the present invention overcomes the obviousness rejection. Similarly, the remaining dependent claims 2-9 are also patentable. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the outstanding rejections.

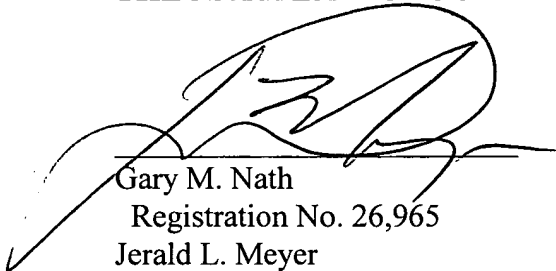
CONCLUSION

In light of the foregoing, Applicants submit that the application is in condition for allowance. If the Examiner believes the application is not in condition for allowance, Applicants respectfully request that the Examiner call the undersigned.

Respectfully submitted,
THE NATH LAW GROUP

February 1, 2007

THE NATH LAW GROUP
112 South West Street
Alexandria, VA 22314-2891
Tel: 703-548-6284
Fax: 703-683-8396



Gary M. Nath
Registration No. 26,965
Jerald L. Meyer
Registration No. 41,194
Stanley N. Protigal
Registration No. 28,657
Customer No. 20529